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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,346	06/07/2001	Tadashi Ichida	57139-5052	9056
24574	7590	03/25/2004	EXAMINER	
JEFFER, MANGELS, BUTLER & MARMARO, LLP 1900 AVENUE OF THE STARS, 7TH FLOOR LOS ANGELES, CA 90067			SMITH, JULIE KNECHT	
			ART UNIT	PAPER NUMBER

3682

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/876,346

Applicant(s)

ICHIDA ET AL.

Examiner

Julie K Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 2, 6, 7 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. The applicant amended claim 6 to state that the adjusting piston extended into the adjusting chamber, instead of the master cylinder. However, claims 2, 7 and 10 still claim that the adjusting piston extends into the master cylinder. It is unclear to the Examiner as to which scenario the applicant is trying to claim. For purposes of this office action, it is going to be assumed that the adjuster piston extends into the adjuster chamber. The drawings also show the adjuster piston extending into the adjuster chamber.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Gajek et al. (5,443,134). Gajek et al. discloses a method of shifting gears in a hydraulic shift gear mechanism having a master cylinder (1a) in communication with a slave cylinder (2), the master cylinder attachable to a bicycle handlebar by a bracket and comprising a main chamber having a

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master piston (1c) and an adjuster chamber (107) including an adjusting piston (108) threadingly engaged therein and a port for adding or removing fluid, and rotating the adjusting piston to vary the depth in which the adjusting piston extends into the adjusting chamber.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2, 3, 5, 10, 1
6. Claims 2, 3, 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami (5,832,782) in view of Gajek et al. and further in view of Kawakami et al. (5,601,001).

Kawakami discloses a shift control device attachable to the handlebar of a bicycle, the shift control device comprising a bracket (3) attachable to the handlebar, a pivot shaft (see figs. 20a-d) spaced apart from the handlebar and fixedly secured to the bracket, a rotating member (90) rotatable in a first direction and a second direction about the pivot shaft, a control lever (95) operatively connected with the rotating member and biased in a neutral position, a push mechanism comprising a first latch segment and a push pawl biased toward the first latch segment and configured to cooperate with the first latch segment to rotate the rotating member in a first direction, a return mechanism comprising a second latch segment and a return pawl, the return pawl having a first claw and a second claw which alternately engage the second latch segment when the rotating member is rotating in the second direction (see figs. 20a-d).

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Kawakami lacks an adjusting piston, as claimed. However, Gajek et al. teaches an adjusting piston (108) adjustably extending into an adjusting chamber in which it is threadingly engaged and operable to adjust the volume of the conduit.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Kawakami with the teachings of Gajek et al. to provide an adjustable piston assembly so as to allow the amount of fluid entering the cylinder to be adjusted and controlled, providing for a more efficient system.

Kawakami further lacks a shift lever that rotates in forward and backward directions from a neutral position. However, Kawakami et al. teaches a shift lever moveable in a first and second direction from a neutral position (see fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a lever that can rotate forward and backward from a neutral position to provide more degrees of freedom in the lever, giving the rider more shifting options.

7. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami, Gajek et al. and Kawakami et al. as applied to claims 2, 3, 5, and 10 above, and further in view of Irwin (4,497,503). The reference combination set forth above discloses a shifter as claimed, but lacks the hydraulic rack and pinion arrangement as claimed by the applicant.

However, Irwin teaches a pinion gear (44) rotatable about a pivot shaft and operatively connected to a rotating member wherein the pinion gear rotates with the rotating member, and a rack gear (46) engaged with the pinion gear and operatively connected to a piston (50) of the

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master cylinder, wherein the rotation of the rotating member in the first direction corresponds to a movement of the piston in a push direction and the rotation in the second direction corresponds to a movement of the piston in a return direction. Irwin further teaches a slave cylinder assembly (90), a master cylinder assembly (50,52) operatively connected to the rotating member of the positioning mechanism, the master cylinder assembly having a primary piston (50) that is movable in a push direction when the rotating member rotates in a first direction and is movable in a return direction when the rotating member rotates in a second direction, a conduit (58) conveying a fluid between the master cylinder assembly and the slave cylinder assembly, the conduit having a volume.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of the reference combination set forth above with the teachings of Irwin to have an adjustable hydraulic rack and pinion device for shifting the bicycle so as to provide a smoother shifting process by reducing friction and reducing "lost motion" in the system, providing for a more efficient system.

8. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gajek et al. as applied to claim 6 above, and further in view of Kawakami et al. Gajek et al. discloses a shifter, as claimed, but lacks a shift lever that rotates in forward and backward directions from a neutral position. However, Kawakami et al. teaches a shift lever moveable in a first and second direction from a neutral position (see fig. 3).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a lever that can rotate forward and backward from a neutral position to provide more degrees of freedom in the lever, giving the rider more shifting options.

Response to Arguments

9. Applicant's arguments with respect to claims 2-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie K Smith whose telephone number is 703-305-3948. The examiner can normally be reached on Monday-Friday, 8-5:30, (Every other Friday off).

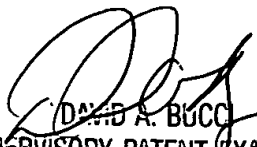
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JKS

Jks

March 18, 2004


DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600
3/18/04